

## Social determinants of health and complications among young adults with type 2 diabetes in an urban population

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**Background:** Type 2 Diabetes Mellitus (T2DM) in young adults (YA) (18-45 years) is associated with more complications than when developed in later life. Stratification of this population is needed to match care to risk on the development of diabetes complications. We aim to identify determinants that are associated with the development of diabetes complications in YA with T2DM in the urban region of The Hague.

**Methods:** An observational retrospective cohort study using routine primary care linked to the Social Statistical Datasets hosted by Statistics Netherlands. Multivariate Cox regression was used to examine the association between the development of diabetes complications within 8 years after diagnose and medical (co-morbidity, medication, body measurements) and social determinants (welfare, migration background).

**Results:** In The Hague a prevalence of 8/1000 YA with T2DM was estimated. Out of 253 YA with T2DM, 35 developed at least one complication. People treated with medication in the year of diagnosis had a higher non-significant hazard on developing complications than peers with lifestyle advice only; blood-glucose-lowering medication (HR: 2.61, 95%CI: 0.61-11.11); insulins (HR: 3.44, 95%CI: 0.68-17.35). Furthermore, YA with low welfare compared to moderate or high welfare and YA with a Surinamese migration background compared to western or other non-western peers had a higher hazard; moderate (HR: 0.50, 95%CI: 0.22-1.18), high (HR: 0.58, 95%CI: 0.21-1.58); Surinamese (HR: 1.28, 95%CI: 0.58-2.79), other not-western (HR: 0.78, 95% CI: 0.32-1.88). These effects were not significant.

**Conclusion/discussion:** Due to the limited size of our dataset, the study has not enough power to draw conclusions about risk factors on the development of complications. Recently our database has been updated, giving access to approximately 4 times more inclusions. Currently we are working on an update of this research, aiming to improve the population description and prediction model.